

Colorado

Water Supply Outlook Report

February 1, 2014



Snow surveyor, Jeri Piller, breaks trail to access the North Inlet Grand Lake snow course on January 29th. Photo was taken by Karen Frasier; both Karen and Jeri are Park Rangers with Rocky Mountain National Park in Grand Lake, CO. They are also a part of the snow survey cooperative network. They measured 25" of depth and 5.1" of water content at North Inlet this month.

REMINDER: We are soliciting field work photos from our snow surveyors again this year. Each month we will pick one to grace the cover of this report! The photographer will be given proper credit of course. Please include information on where, when and of who/what the photo was taken.

Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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Summary

Colorado typically receives 20 percent of its snowpack in January, but this year, after a great start to the snow season it seemed as though January might disappoint. From January 15th to 27th snow accumulation statewide was almost nil, but thankfully winter storms during the last week of the month brought a snowy and wet finale. The entire state reaped the benefits of the late January storms. The northern and central mountains received enough snow to push snowpack reports back to above normal totals. In the southern part of the state the moisture was especially welcome since the region had received very little snow since early December. The storms improved snowpack percentages in this region but it was not enough for them to reach normal conditions. Water storage in the state has improved over the past month but statewide totals are still tracking slightly below average for this time of year. Storage in the southwest, Upper Rio Grande and Arkansas basins remains well below average. With only 40 percent of the winter snow accumulation season remaining, water managers in these regions should pay close attention to the weather patterns over the next couple months in order to make informed decisions concerning their water supplies.

Snowpack

Data collected from manual snow courses and automated SNOTEL sites across Colorado showed an overall increase in the snowpack during January. Statewide snowpack totals were 107 percent of median as of February 1. Looking beyond statewide totals, the data vividly shows the variability between the northern and southern part of the state. The combined San Juan (Animas, Dolores, San Miguel and San Juan) basins has declined from 100 percent of median on January 1 to 82 percent as of February 1. The Upper Rio Grande basin's snowpack has also decreased since last month's report; dropping from 99 percent of median on January 1 to 82 percent of median on February 1. The Arkansas basin saw a slight improvement in its snowpack from 105 percent to 108 percent of median, but this was mostly a result of the Upper Arkansas jumping from 92 percent to 119 percent of median. The snowpack in the lower reaches of the basin had significant decreases this month. The South Platte basin had the most notable gain in snowpack totals during January, with an increase from 99 percent of median to 126 percent of median as of February 1.

Precipitation

Statewide monthly SNOTEL precipitation totals were 117 percent of median for January, but three basins fell short of the "normal" mark for the month. The Gunnison basin recorded 92 percent of average for monthly precipitation and was at 97 percent for year-to-date precipitation as of February 1. The combined San Juan basins only recorded 59 percent of normal precipitation for the month, and year-to-date precipitation dropped to 87 percent of average. The Upper Rio Grande basin recorded monthly totals at 57 percent of average which dropped year-to-date precipitation to 82 percent of average. The remaining basins all recorded above average precipitation for the month of January. The Colorado and the South Platte basins both received well above average precipitation at 152 percent and 183 percent respectively.

Reservoir Storage

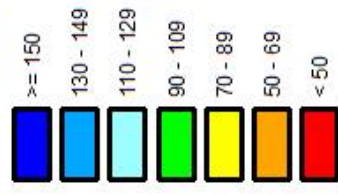
Colorado's reservoir storage volumes are slightly below average for this time of year. Statewide storage was 90 percent of average at the end of January, which is a major improvement over the 69 percent of average reported last year at the same time. Both the South Platte and Yampa/White basins are reporting above average storage levels, at 111 percent and 112 percent respectively. The Colorado basin is currently storing water at near normal levels; 98 percent of average as of January 31. While the remaining basin's storage volumes are all below average currently, current volumes are improvements compared to last year's for this same date. The Arkansas basin has the lowest storage volumes as a percent of average, at 64 percent of average and 25 percent of capacity. The Upper Rio Grande is also storing well below normal amounts of water; storage was 65 percent of average at the end of January.

Streamflow

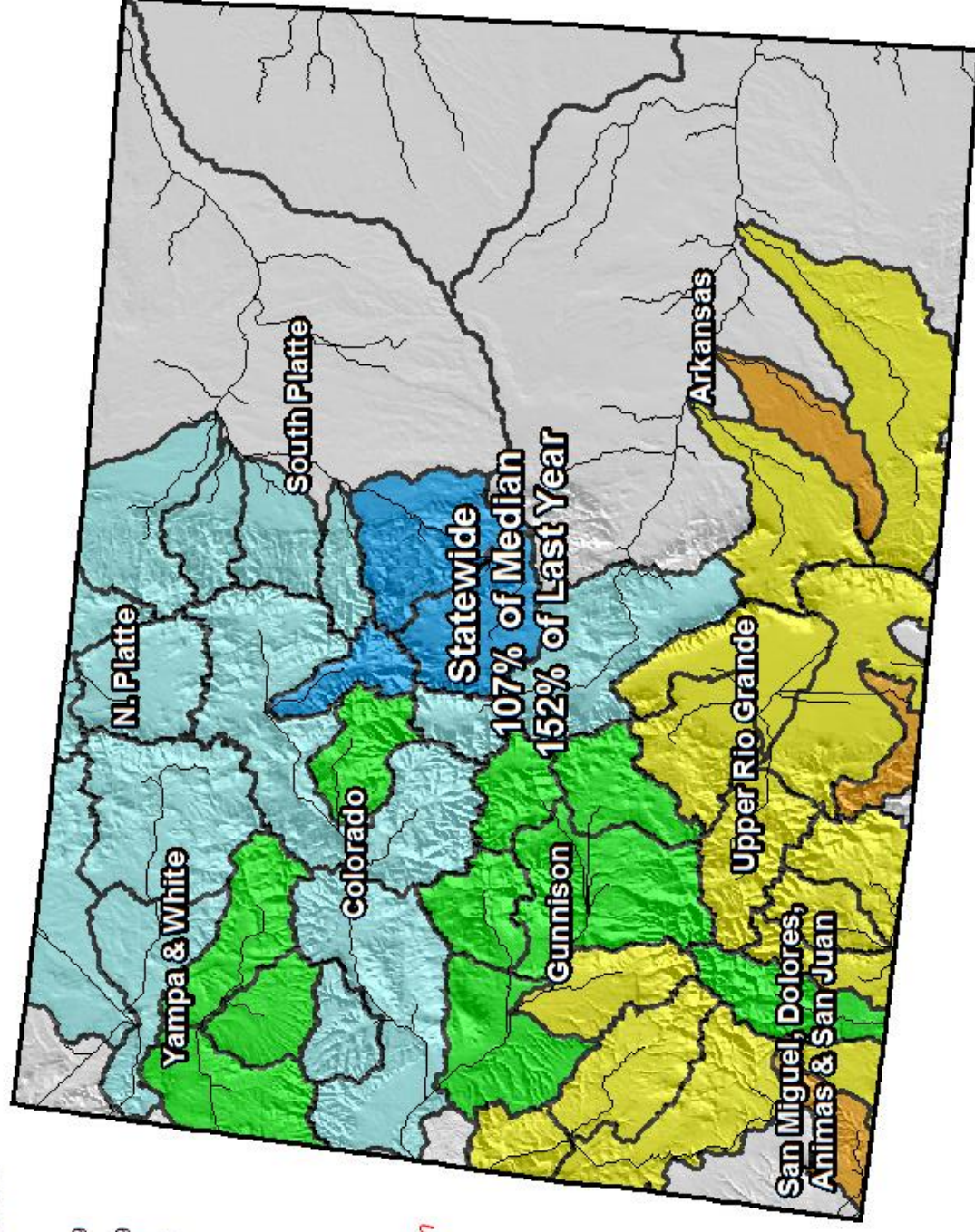
This month's streamflow forecasts for the spring and summer season follow the trends observed in the snowpack reports. Near to above normal runoff is predicted for the Yampa/White, Colorado, Gunnison, South Platte and Upper Arkansas basins. Overall the February 1 forecasts in these regions have improved compared to those issued last month. Most forecasts in these areas are slightly above normal. Spring runoff in the combined San Juan basins is now expected to be around 80 percent of normal, all current forecasts in these basins have declined from last month's. In the Upper Rio Grande basin the forecasts have also decreased from those issued last month, with larger decreases as you move from the headwaters of the basin to the southern tributaries. The forecasts for the downstream tributaries of the Arkansas basin have also dropped compared to last month's in contrast to the improvements in the headwaters region mentioned above.

Colorado Snowpack Map

Percent of Median



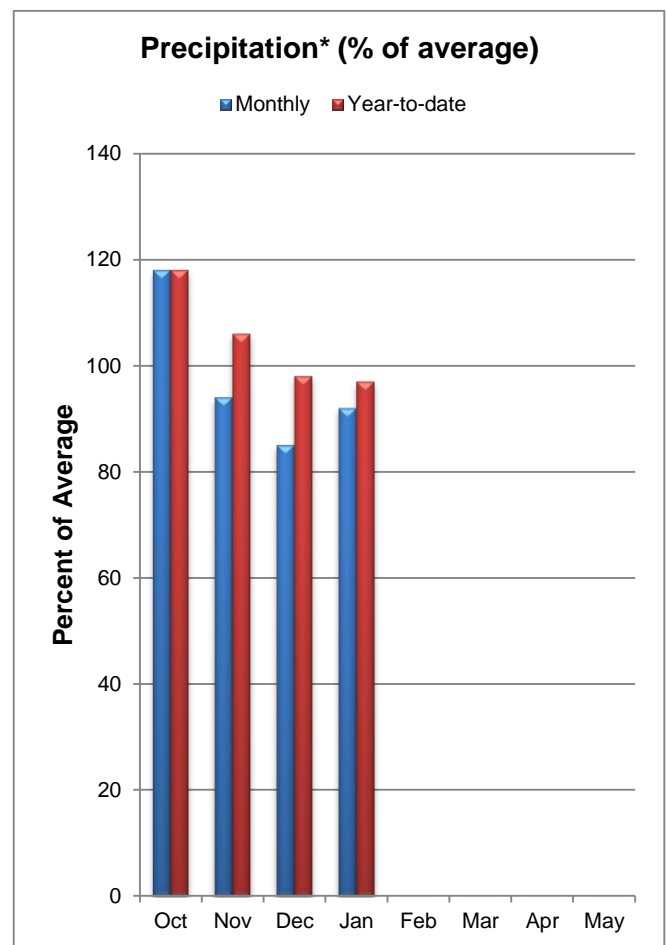
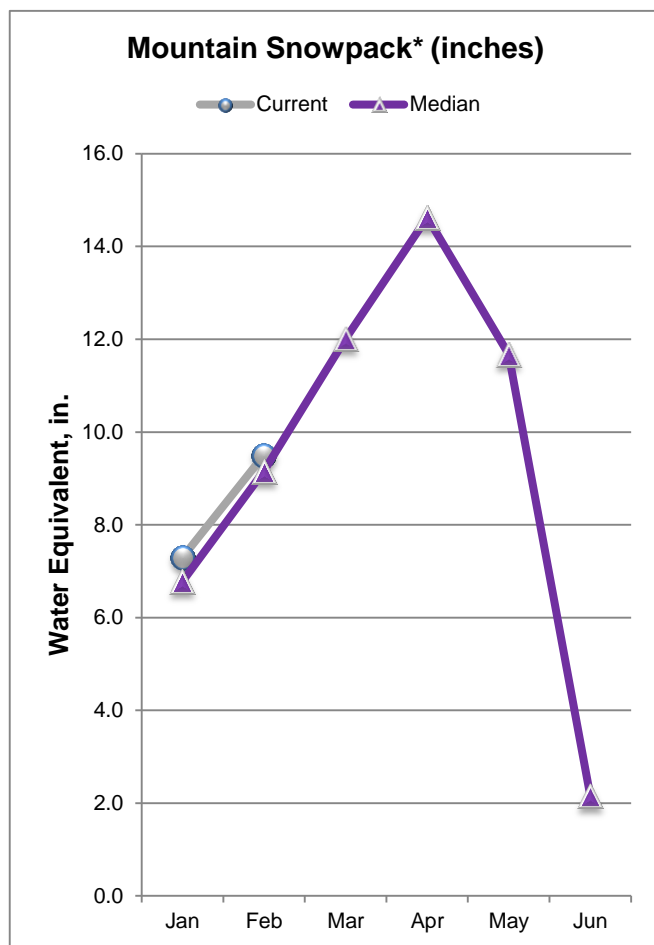
*Provisional Data
Subject to Revision*



Current as of February 1, 2014

GUNNISON RIVER BASIN

as of February 1, 2014



*Based on selected stations

SUMMARY OF WATER SUPPLY CONDITIONS

SNOWPACK

Snowpack totals are 104 percent of the median. This is a slight decline from last month's measurements. Basin wide conditions are variable; the headwaters region is at 108 percent while both the Surface Creek and Uncompahgre drainages are below normal, 96 and 87 percent respectively.

PRECIPITATION

Mountain precipitation during January was 92 percent of average leaving year-to-date precipitation just below normal at 97 percent of average.

RESERVOIR

Storage amounts in the basin improved slightly this month. Storage volumes are at 85 percent of average and 56 percent of capacity.

STREAMFLOW FORECASTS

February 1 streamflow forecasts range from 108 percent of average for the Gunnison River near Gunnison to 83 percent of average for Surface Creek at Cedaredge. Most of the forecasts in this basin increased from last month's; the exceptions are the forecasts for Surface Creek, the Inflow to Ridgway Reservoir and the Uncompahgre River at Colona.

Gunnison River Basin Streamflow Forecasts - February 1, 2014

 Forecast Exceedance Probabilities for Risk Assessment
 Chance that actual volume will exceed forecast

GUNNISON RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Taylor Park Reservoir Inflow	APR-JUL	71	91	106	107%	122	148	99
Slate R nr Crested Butte	APR-JUL	66	79	88	106%	98	114	83
East R at Almont	APR-JUL	133	169	195	107%	225	270	182
Gunnison R near Gunnison ²	APR-JUL	260	340	400	108%	465	570	370
Tomichi Ck at Sargents	APR-JUL	14.7	23	30	100%	38	51	30
Cochetopa Ck bl Rock Ck nr Parlin	APR-JUL	5.6	10.5	14.6	97%	19.4	28	15
Tomichi Ck at Gunnison	APR-JUL	28	53	74	100%	99	142	74
Lake Fk at Gateview	APR-JUL	88	112	130	106%	149	180	123
Blue Mesa Reservoir Inflow ²	APR-JUL	450	600	710	105%	830	1030	675
Paonia Reservoir Inflow	MAR-JUN	49	72	90	94%	110	143	96
	APR-JUL	47	71	91	94%	113	150	97
NF Gunnison R nr Somerset ²	APR-JUL	178	235	275	95%	320	395	290
Surface Ck at Cedaredge	APR-JUL	9.5	12.1	14	83%	16.1	19.4	16.8
Ridgway Reservoir Inflow	APR-JUL	61	80	94	93%	110	135	101
Uncompahgre R at Colona ²	APR-JUL	68	100	125	91%	153	199	137
Gunnison R nr Grand Junction ²	APR-JUL	875	1190	1430	97%	1690	2120	1480

1) 90% and 10% exceedance probabilities are actually 95% and 5%

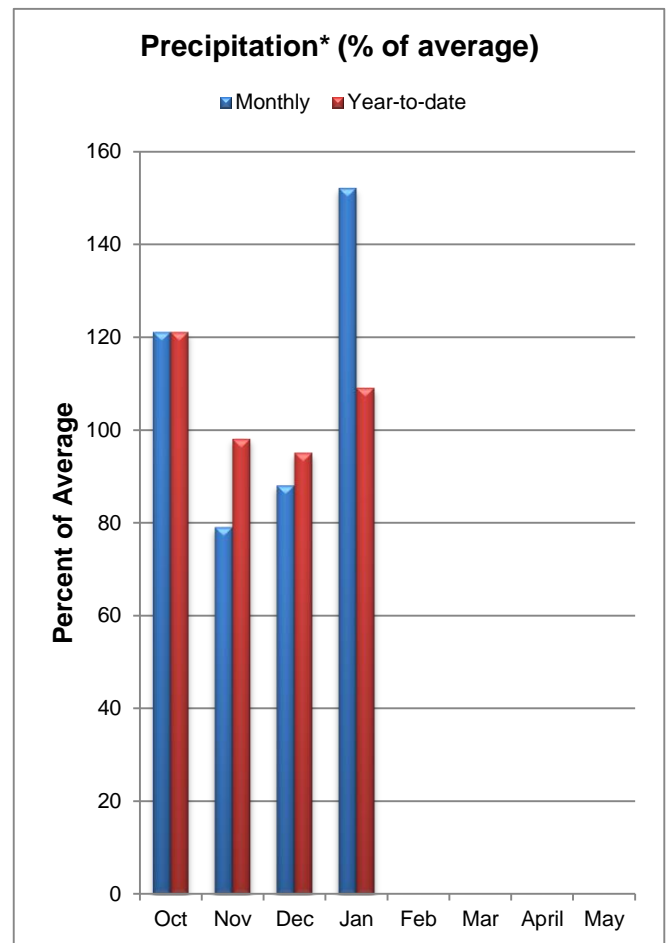
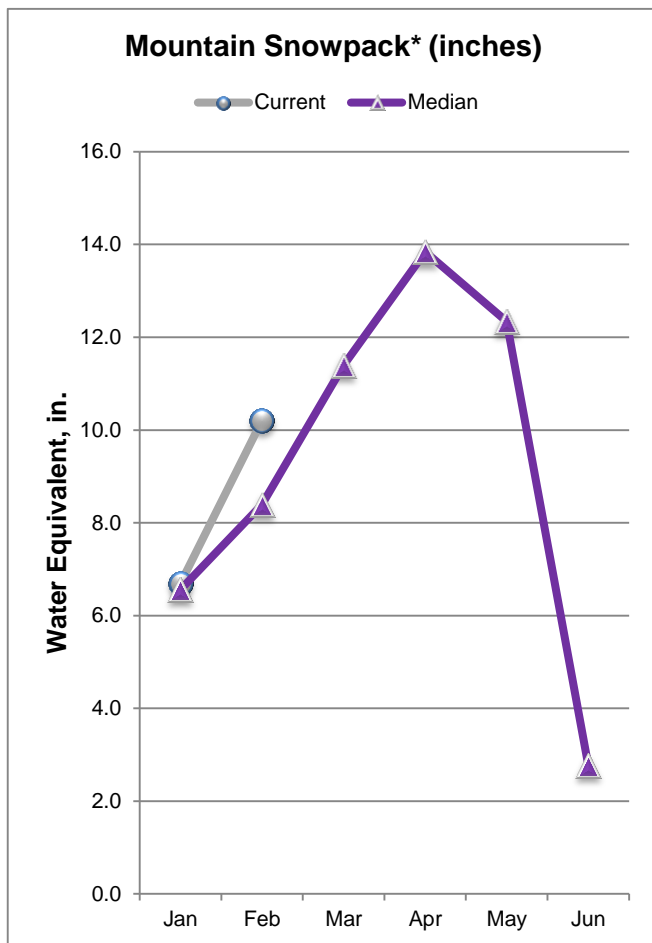
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
BLUE MESA RESERVOIR	387.7	327.7	514.6	830.0
CRAWFORD RESERVOIR	4.7	1.4	7.7	14.0
CRYSTAL RESERVOIR	15.0	7.6	7.6	17.5
FRUITGROWERS RESERVOIR	2.6	1.4	3.4	3.6
FRUITLAND RESERVOIR	1.6	1.0	1.3	9.2
MORROW POINT RESERVOIR	107.9	105.2	111.4	121.0
PAONIA RESERVOIR	0.4	1.3	3.5	15.4
RIDGEWAY RESERVOIR	73.7	54.8	69.2	83.0
SILVERJACK RESERVOIR	10.0	2.6	5.3	12.8
TAYLOR PARK RESERVOIR	71.4	56.6	66.9	106.0
VOUGA RESERVOIR	0.5	0.6	0.7	
Basin-wide Total	675.5	560.1	791.6	1212.5
# of reservoirs	11	11	11	10

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
UPPER GUNNISON BASIN	17	108%	72%
SURFACE CREEK BASIN	3	96%	83%
UNCOMPAHGRE BASIN	4	87%	85%
GUNNISON RIVER BASIN	21	104%	74%

UPPER COLORADO RIVER BASIN as of February 1, 2014



*Based on selected stations

SUMMARY OF WATER SUPPLY CONDITIONS

SNOWPACK

Thanks to good snow accumulation in early January and the large storm system that hit the basin at the end of the month, the snowpack improved significantly. The current readings put the snowpack at 121 percent of median as of February 1. Only one basin reported below normal readings; Plateau Creek at 96 percent of median.

PRECIPITATION

Precipitation during January was well above average. Data from the SNOTEL sites report totals to be 152 percent of average for the month. Year-to-date precipitation is also looking good at 109 percent of average.

RESERVOIR

Storage volumes in the reservoirs in this basin remain in good shape. End of January reports have storage totals at 98 percent of average. Last year storage totals were just 67 percent of average.

STREAMFLOW FORECASTS

Forecasts currently range from 124 percent of average for the Inflow to Wolford Mountain to 104 percent for the Roaring Fork at Glenwood Springs.

Upper Colorado River Basin Streamflow Forecasts - February 1, 2014

 Forecast Exceedance Probabilities for Risk Assessment
 Chance that actual volume will exceed forecast

UPPER COLORADO RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Lake Granby Inflow ²	APR-JUL	170	210	240	109%	270	320	220
Willow Ck Reservoir Inflow	APR-JUL	31	42	51	109%	60	76	47
Williams Fk bl Williams Fk Reservoir ²	APR-JUL	73	93	108	111%	124	150	97
Wolford Mtn Reservoir Inflow	APR-JUL	46	58	67	124%	77	92	54
Dillon Reservoir Inflow ²	APR-JUL	130	165	191	117%	220	265	163
Green Mountain Reservoir Inflow ²	APR-JUL	215	275	320	116%	365	445	275
Eagle R bl Gypsum ²	APR-JUL	250	320	370	110%	425	515	335
Colorado R nr Dotsero ²	APR-JUL	1060	1360	1590	114%	1840	2230	1400
Ruedi Reservoir Inflow ²	APR-JUL	106	132	151	109%	171	205	139
Roaring Fk at Glenwood Springs ²	APR-JUL	500	625	715	104%	810	965	690
Colorado R nr Cameo ²	APR-JUL	1790	2240	2570	109%	2920	3480	2350

1) 90% and 10% exceedance probabilities are actually 95% and 5%

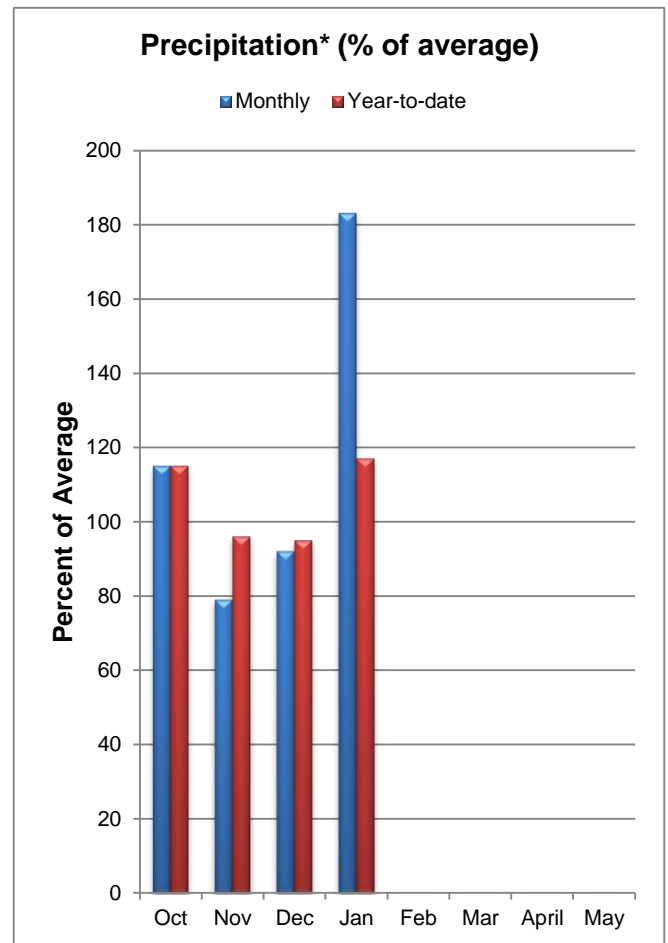
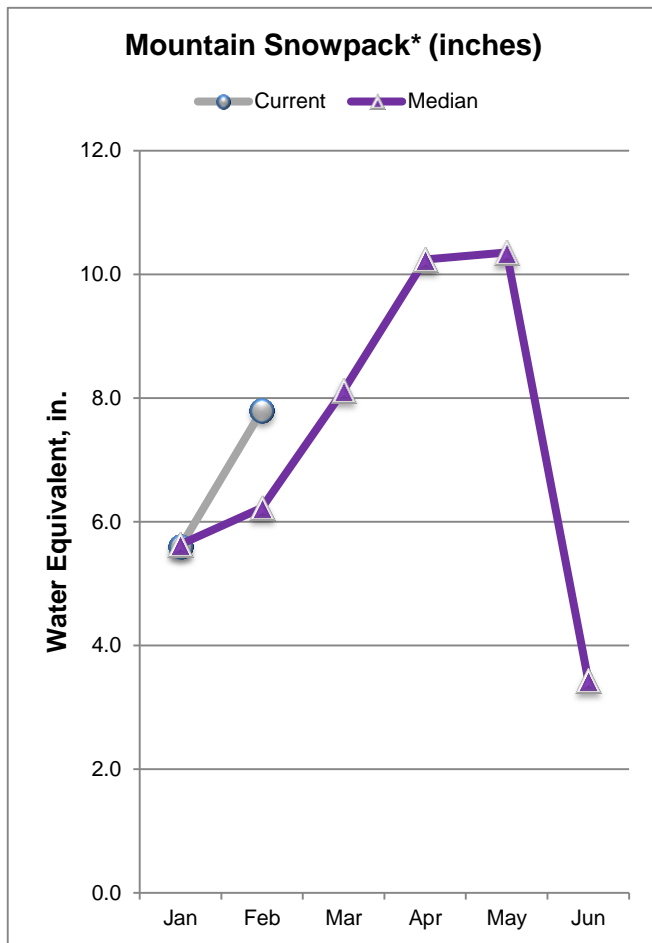
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
DILLON RESERVOIR	239.7	171.9	223.3	254.0
GREEN MOUNTAIN RESERVOIR	75.5	55.2	77.1	146.8
HOMESTAKE RESERVOIR	0.9	0.3	31.7	43.0
LAKE GRANBY	276.0	177.4	302.9	465.6
RUEDI RESERVOIR	79.8	62.8	72.4	102.0
SHADOW MOUNTAIN RESERVOIR	18.0	17.4	17.3	18.4
VEGA RESERVOIR	15.7	8.1	12.4	32.9
WILLIAMS FORK RESERVOIR	75.9	42.5	63.8	97.0
WILLOW CREEK RESERVOIR	7.2	6.6	6.9	9.1
WOLFORD MOUNTAIN RESERVOIR	43.7	24.4	43.6	65.9
Basin-wide Total	832.4	566.6	851.4	1234.7
# of reservoirs	10	10	10	10

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
BLUE RIVER BASIN	8	137%	56%
HEADWATERS COLORADO RIVER	35	125%	67%
MUDDY CREEK BASIN	5	132%	82%
EAGLE RIVER BASIN	4	117%	62%
PLATEAU CREEK BASIN	3	96%	83%
ROARING FORK BASIN	9	117%	69%
WILLIAMS FORK BASIN	5	128%	67%
WILLOW CREEK BASIN	5	117%	74%
UPPER COLORADO RIVER BASIN	47	121%	69%

SOUTH PLATTE RIVER BASIN as of February 1, 2014



*Based on selected stations

SUMMARY OF WATER SUPPLY CONDITIONS

SNOWPACK

The South Platte basin currently boasts the highest snowpack percentage in the state. As of February 1 the snowpack was 126 percent of median, a substantial increase from the January 1 report of 99 percent.

PRECIPITATION

Precipitation recorded during January in the basin was also the highest reported statewide. Precipitation was 183 percent of average for the month, which boosted the year-to-date precipitation to 117 percent of average (also the highest percentage statewide).

RESERVOIR

Reservoir storage volumes are 111 percent of average with total acre-feet stored increasing by 36,200 acre-feet this past month.

STREAMFLOW FORECASTS

Forecasts for April to July runoff have improved slightly this month. They currently range from 114 percent of average for the Inflow to Antero Reservoir to 105 percent of average for South Boulder Creek near Eldorado Springs.

South Platte River Basin Streamflow Forecasts - February 1, 2014

 Forecast Exceedance Probabilities for Risk Assessment
 Chance that actual volume will exceed forecast

SOUTH PLATTE RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Antero Reservoir Inflow ²	APR-JUL	9.9	13.8	16.5	114%	19.2	23	14.5
	APR-SEP	12.6	17.1	20	112%	23	28	17.8
Spinney Mountain Reservoir Inflow ²	APR-JUL	26	39	52	108%	69	105	48
	APR-SEP	31	48	65	107%	87	135	61
Elevenmile Canyon Reservoir Inflow ²	APR-JUL	26	40	54	108%	73	113	50
	APR-SEP	32	51	70	109%	96	154	64
Cheesman Lake Inflow ²	APR-JUL	50	79	107	107%	146	230	100
	APR-SEP	62	98	134	106%	183	290	126
South Platte R at South Platte ²	APR-JUL	82	135	190	106%	265	440	180
	APR-SEP	104	171	240	107%	335	555	225
Bear Ck ab Evergreen	APR-JUL	8	13.2	18	110%	26	43	16.4
	APR-SEP	10.5	16.7	23	110%	32	50	21
Bear Ck at Morrison	APR-JUL	8.9	16.1	24	109%	36	65	22
	APR-SEP	11.6	20	30	107%	44	78	28
Clear Ck at Golden	APR-JUL	84	101	113	108%	125	142	105
	APR-SEP	102	123	138	108%	153	174	128
St. Vrain Ck at Lyons ²	APR-JUL	74	86	95	108%	104	116	88
	APR-SEP	84	99	109	106%	119	134	103
Boulder Ck nr Orodell ²	APR-JUL	47	54	58	107%	62	69	54
	APR-SEP	54	62	67	106%	72	80	63
South Boulder Ck nr Eldorado Springs ²	APR-JUL	33	38	41	105%	45	49	39
	APR-SEP	35	41	45	105%	49	55	43
Big Thompson R at Canyon Mouth ²	APR-JUL	71	86	96	107%	106	121	90
	APR-SEP	85	103	115	107%	127	145	107
Cache La Poudre at Canyon Mouth ²	APR-JUL	163	210	240	107%	270	315	225
	APR-SEP	180	230	265	106%	300	350	250

1) 90% and 10% exceedance probabilities are actually 95% and 5%

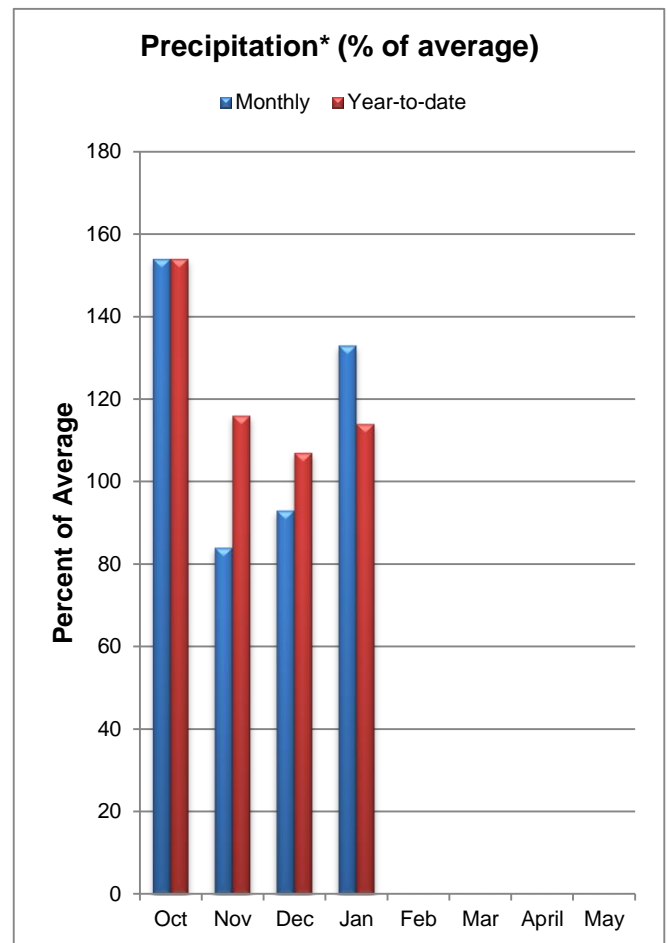
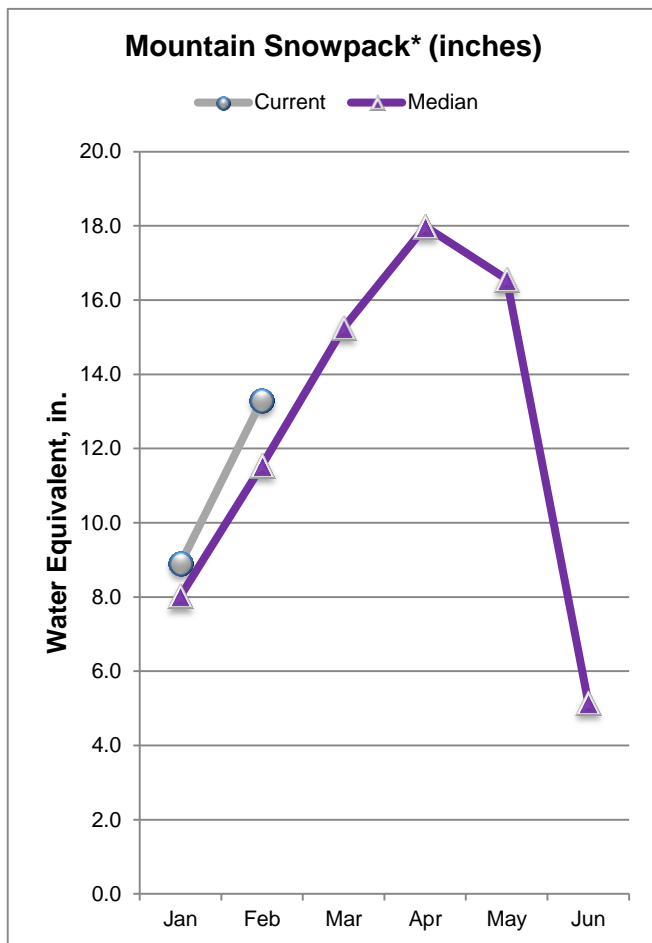
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
ANTERO RESERVOIR	16.9	15.2	15.3	19.9
BARR LAKE	25.9	13.9	24.0	30.1
BLACK HOLLOW RESERVOIR	3.6	2.3	2.8	6.5
BOYD LAKE	33.5	15.6	27.8	48.4
CACHE LAPOUDRE	0.5	3.1	6.4	10.1
CARTER LAKE	59.9	69.6	78.3	108.9
CHAMBERS LAKE	7.0	1.4	3.1	8.8
CHEESMAN LAKE	74.5	43.9	63.7	79.0
COBB LAKE	19.7	11.8	11.7	22.3
ELEVENMILE CANYON RESERVOIR	100.3	99.4	95.9	98.0
EMPIRE RESERVOIR	28.8	26.0	22.6	36.5
FOSSIL CREEK RESERVOIR	9.2	9.0	6.9	11.1
GROSS RESERVOIR	33.7	31.2	26.3	41.8
HALLIGAN RESERVOIR	4.4	3.9	4.5	6.4
HORSECREEK RESERVOIR	11.8		10.4	14.7
HORSETOOTH RESERVOIR	94.8	73.2	94.7	149.7
JACKSON LAKE RESERVOIR	26.0	23.2	23.1	26.1
JULESBURG RESERVOIR	15.2	15.5	16.9	20.5
LAKE LOVELAND RESERVOIR	8.5	3.0	6.8	10.3
LONE TREE RESERVOIR	7.6	5.4	6.4	8.7
MARIANO RESERVOIR	4.3	2.4	3.0	5.4
MARSHALL RESERVOIR	8.8	5.7	5.6	10.0
MARSTON RESERVOIR	7.5	12.5	5.9	13.0
MILTON RESERVOIR	19.5	6.3	15.8	23.5
POINT OF ROCKS RESERVOIR	56.4	40.8	51.1	70.6
PREWITT RESERVOIR	22.3	6.9	15.7	28.2
RALPH PRICE RESERVOIR	13.9	14.3		16.2
RIVERSIDE RESERVOIR	44.3	31.5	37.3	55.8
SPINNEY MOUNTAIN RESERVOIR	43.9	24.6	29.0	49.0
STANDLEY RESERVOIR	40.0	28.0	35.7	42.0
TERRY RESERVOIR	5.6	4.8	5.0	8.0
UNION RESERVOIR	11.7	5.5	10.0	13.0
WINDSOR RESERVOIR	12.4	9.6	8.3	15.2
Basin-wide Total	872.4	659.5	770.0	1107.7
# of reservoirs	33	32	32	33

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
BIG THOMPSON BASIN	7	122%	60%
BOULDER CREEK BASIN	6	131%	63%
CACHE LAPOUDRE BASIN	10	121%	59%
CLEAR CREEK BASIN	4	125%	65%
SAINT VRAIN BASIN	3	116%	59%
UPPER SOUTH PLATTE BASIN	16	135%	44%
SOUTH PLATTE RIVER BASIN	46	126%	57%

YAMPA, WHITE, NORTH PLATTE AND LARAMIE RIVER BASINS as of February 1, 2014



*Based on selected stations

SUMMARY OF WATER SUPPLY CONDITIONS

SNOWPACK

Snowpack totals as of February 1 in these basins were at 115 percent of the median. The Laramie sub basin reported the highest total at 127 percent of median and the Elk River watershed was the lowest at 104 percent of median.

PRECIPITATION

Mountain precipitation for the month of January was 133 percent of average. Year-to-date precipitation is also above average at 114 percent.

RESERVOIR

The two reservoirs in these basins are currently storing volumes at 112 percent of average. Storage amounts have remained relatively constant over the past few months.

STREAMFLOW FORECASTS

Nearly all forecasts in these basins have increased compared to last month's. The exception is the White River near Meeker which has remained the same at 93 percent of average. Elkhead Creek above Long Gulch has the highest forecast in the basins at 123 percent of average.

Data Current as of: 2/7/2014 4:42:15 PM

Yampa-White-North Platte River Basins Streamflow Forecasts - February 1, 2014

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

YAMPA-WHITE-NORTH PLATTE RIVER BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
North Platte R nr Northgate	APR-JUL	142	210	260	116%	305	375	225
	APR-SEP	156	235	285	114%	335	415	250
Laramie R nr Woods ²	APR-JUL	82	105	121	105%	137	160	115
	APR-SEP	91	116	134	106%	151	176	126
Yampa R ab Stagecoach Reservoir ²	APR-JUL	15.9	22	27	117%	32	41	23
	APR-SEP	15.9	22	27	117%	32	41	23
Yampa R at Steamboat Springs ²	APR-JUL	215	260	290	112%	325	375	260
	APR-SEP	215	260	290	112%	325	375	260
Elk R nr Milner	APR-JUL	265	335	385	120%	440	530	320
	APR-SEP	265	335	385	120%	440	530	320
Elkhead Ck ab Long Gulch	APR-JUL	53	74	90	123%	108	137	73
	APR-SEP	53	74	90	123%	108	137	73
Yampa R nr Maybell ²	APR-JUL	710	915	1070	114%	1240	1510	935
	APR-SEP	710	915	1070	114%	1240	1510	935
Little Snake R nr Slater ²	APR-JUL	122	152	175	112%	199	235	156
	APR-SEP	122	152	175	112%	199	235	156
Little Snake R nr Dixon ²	APR-JUL	225	310	375	109%	445	560	345
	APR-SEP	225	310	375	109%	445	560	345
Little Snake R nr Lily ²	APR-JUL	225	310	380	110%	455	575	345
	APR-SEP	225	310	380	110%	455	575	345
White R nr Meeker	APR-JUL	176	225	260	93%	300	360	280
	APR-SEP	176	225	260	93%	300	360	280

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

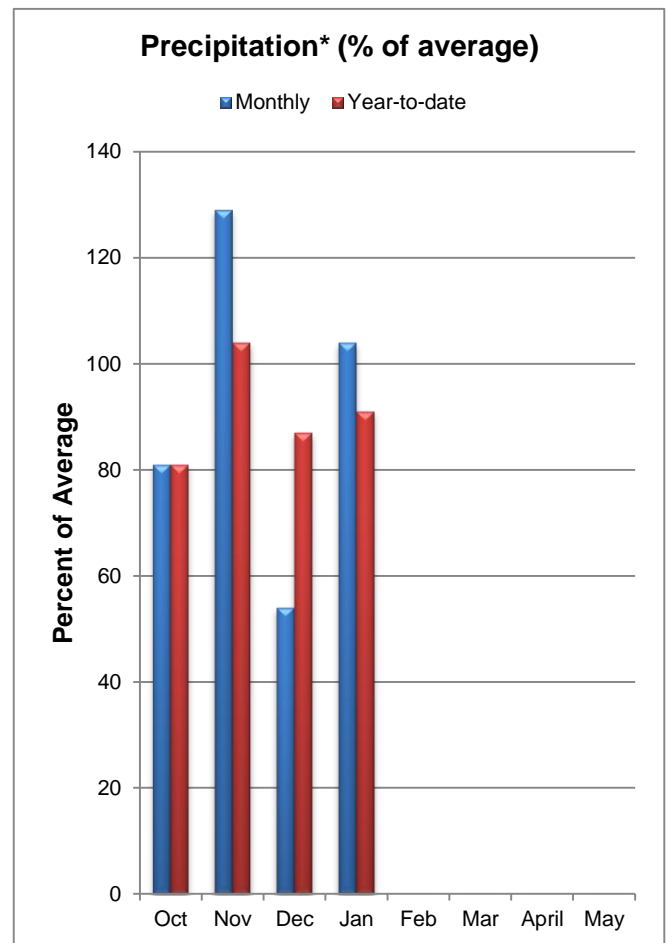
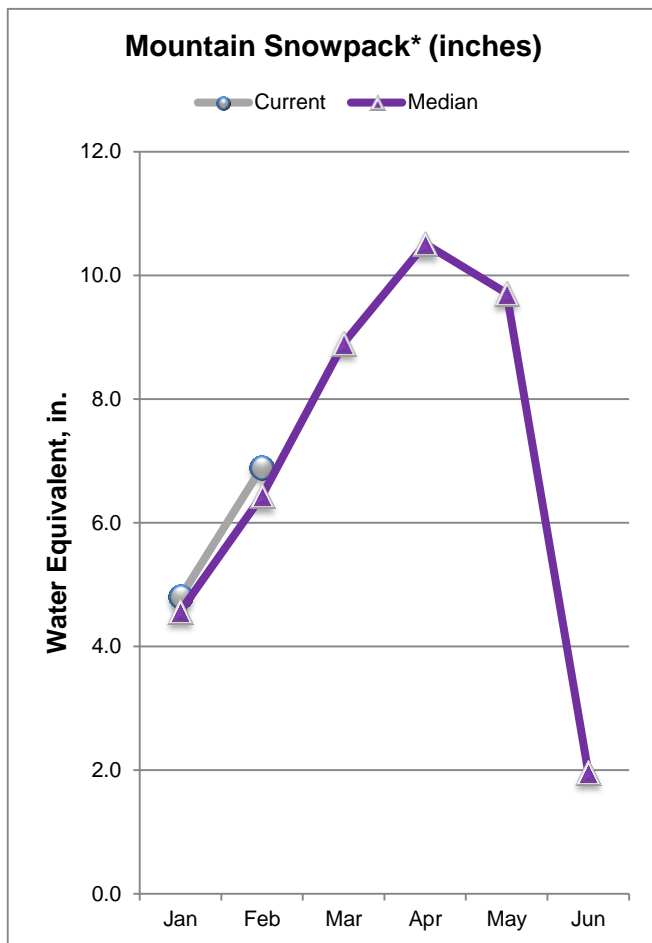
3) Median value used in place of average

Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
STAGECOACH RESERVOIR NR OAK CREEK	33.6	28.9	28.2	33.3
YAMCOLO RESERVOIR	4.5	3.2	5.8	8.7
Basin-wide Total	38.1	32.1	34.0	42.0
# of reservoirs	2	2	2	2

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
LARAMIE RIVER BASIN	4	127%	69%
NORTH PLATTE RIVER BASIN	37	115%	76%
LARAMIE & NORTH PLATTE RIVER BASINS	16	119%	72%
ELK RIVER BASIN	2	104%	73%
YAMPA RIVER BASIN	12	120%	77%
WHITE RIVER BASIN	5	106%	79%
YAMPA & WHITE RIVER BASINS	16	115%	76%
LITTLE SNAKE RIVER BASIN	9	112%	77%
YAMPA-WHITE-NORTH PLATTE RIVER BASINS	37	115%	76%

ARKANSAS RIVER BASIN

as of February 1, 2014



*Based on selected stations

SUMMARY OF WATER SUPPLY CONDITIONS

SNOWPACK

The snowpack for the entire basin is at 108 percent of median, but it is quite variable across the basin. The Upper Arkansas sub basin is at 119 percent of median, a large improvement over last month. The southern tributaries are not fairing as well, all being at 84 percent of median.

PRECIPITATION

Precipitation during January was 104 percent of average. This boosted year-to-date precipitation in the basin up to 91 percent of average.

RESERVOIR

Storage in this basin is the lowest as a percent of average statewide. Reservoirs are storing volumes at just 64 percent of average.

STREAMFLOW FORECASTS

April to July streamflow forecasts in the Upper Arkansas improved this month; the biggest improvement was 19 percentage points for Chalk Creek near Nathrop, currently at 114 percent of average. Forecasts in the lower tributaries dropped significantly. Cucharas Creek near La Veta dropped 28 percentage points from last month, to 60 percent of average.

Arkansas River Basin

Streamflow Forecasts - February 1, 2014

 Forecast Exceedance Probabilities for Risk Assessment
 Chance that actual volume will exceed forecast

ARKAN SAS RIVER BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Chalk Ck nr Nathrop	APR-JUL	13.7	19.7	24	114%	30	38	21
	APR-SEP	17.1	24	30	115%	35	45	26
Arkansas R at Salida ²	APR-JUL	194	240	270	113%	305	360	240
	APR-SEP	230	285	325	110%	365	435	295
Grape Ck nr Westcliffe	APR-JUL	3	9	14.9	94%	22	36	15.9
	APR-SEP	5.6	12.3	18.5	94%	26	39	19.6
Pueblo Reservoir Inflow ²	APR-JUL	235	325	390	108%	465	580	360
	APR-SEP	310	410	490	108%	575	710	455
Huerfano R nr Redwing	APR-JUL	5.3	7.9	10	84%	12.3	16.2	11.9
	APR-SEP	7.2	10.3	12.8	84%	15.5	20	15.2
Cucharas R nr La Veta	APR-JUL	2.2	4.9	7.3	60%	10.2	15.5	12.2
	APR-SEP	3.2	6.3	9	64%	12.2	17.8	14.1
Trinidad Lake Inflow ²	MAR-JUL	7.3	16.5	25	68%	35	53	37
	APR-SEP	10.7	22	33	70%	46	68	47

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

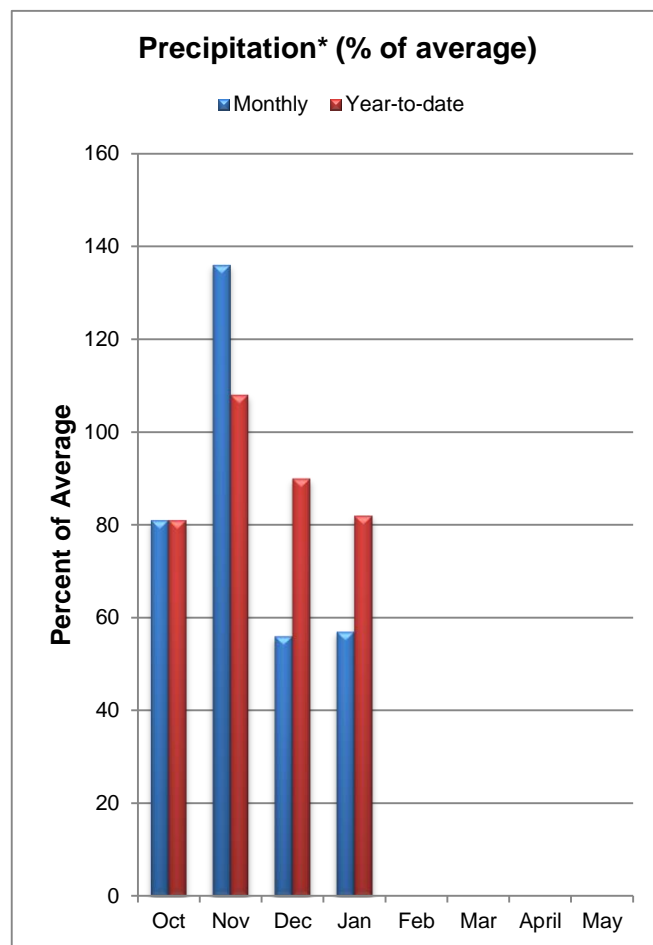
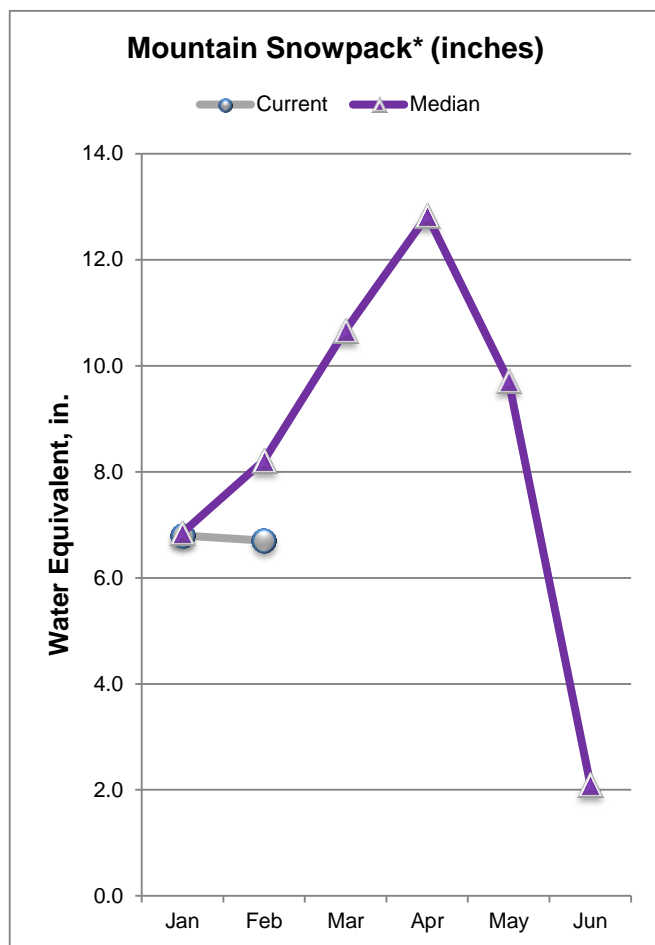
3) Median value used in place of average

Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
ADOBE CREEK RESERVOIR	21.1	6.8	42.9	62.0
CLEAR CREEK RESERVOIR	8.2	6.8	7.2	11.4
CUCHARAS RESERVOIR		0.1	5.5	40.0
GREAT PLAINS RESERVOIR		0.0	30.7	150.0
HOLBROOK LAKE		1.3	3.6	7.0
HORSE CREEK RESERVOIR		0.0	12.0	27.0
JOHN MARTIN RESERVOIR	33.6	26.3	135.9	616.0
LAKE HENRY	8.6	3.3	4.1	8.0
MEREDITH RESERVOIR	7.6	23.8	22.9	42.0
PUEBLO RESERVOIR	154.3	169.8	187.5	354.0
TRINIDAD LAKE	16.1	12.1	25.6	167.0
TURQUOISE LAKE	83.1	39.7	86.3	127.0
TWIN LAKES RESERVOIR	28.5	22.5	54.3	86.0
Basin-wide Total	361.1	312.6	618.5	1697.4
# of reservoirs	9	13	13	13

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
UPPER ARKANSAS BASIN	9	119%	61%
CUCHARAS & HUERFANO BASINS	5	84%	64%
PURGATOIRE RIVER BASIN	2	84%	76%
ARKANSAS RIVER BASIN	16	108%	61%

UPPER RIO GRANDE RIVER BASIN

as of February 1, 2014



*Based on selected stations

SUMMARY OF WATER SUPPLY CONDITIONS

SNOWPACK

Due to an extended dry spell from early December to late January, the snowpack in the Upper Rio Grande basin fell from 99 percent of median measured on January 1 to 82 percent of median as of February 1.

PRECIPITATION

January precipitation was just 57 percent of average in the basin. This is the second consecutive month to record well below normal precipitation. Year-to-date precipitation has fallen to 82 percent of average.

RESERVOIR

Storage volumes in this basin remain well below normal. Reports from the end of January had totals at 65 percent of average and 19 percent of capacity.

STREAMFLOW FORECASTS

Nearly all forecasts for the basin have decreased compared to last months. The one exception was the forecast for Saguache Creek near Saguache which is currently at 100 percent of average. The lowest forecast is for the San Antonio River at Ortiz which is just 53 percent of average this month.

Upper Rio Grande Basin Streamflow Forecasts - February 1, 2014

 Forecast Exceedance Probabilities for Risk Assessment
 Chance that actual volume will exceed forecast

UPPER RIO GRANDE BASIN	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Rio Grande at Thirty Mile Bridge ²	APR-SEP	74	97	114	88%	133	163	129
	APR-JUL	65	85	100	88%	116	142	113
Rio Grande at Wagon Wheel Gap ²	APR-SEP	186	250	300	88%	355	440	340
SF Rio Grande at South Fork ²	APR-SEP	63	83	98	77%	114	141	127
Rio Grande nr Del Norte ²	APR-SEP	265	360	435	84%	515	645	515
Saguache Ck nr Saguache	APR-SEP	16.7	25	32	100%	40	52	32
Alamosa Ck ab Terrace Reservoir	APR-SEP	32	42	50	74%	59	73	68
La Jara Ck nr Capulin	MAR-JUL	3.2	4.9	6.2	70%	7.7	10.2	8.9
Trinchera Ck ab Turners Ranch	APR-SEP	5.2	7	8.4	67%	9.9	12.3	12.6
Sangre de Cristo Ck ²	APR-SEP	2.8	6.1	9.2	56%	12.8	19.3	16.3
Ute Ck nr Fort Garland	APR-SEP	4.2	6.9	9.1	71%	11.7	16	12.8
Platoro Reservoir Inflow	APR-SEP	33	42	49	79%	56	68	62
	APR-JUL	30	38	44	79%	50	60	56
Conejos R nr Mogote ²	APR-SEP	93	122	144	74%	168	205	194
San Antonio R at Ortiz	APR-SEP	3.2	5.9	8.2	53%	10.9	15.6	15.6
Los Pinos R nr Ortiz	APR-SEP	28	39	48	66%	58	74	73
Culebra Ck at San Luis	APR-SEP	8	13	17	74%	22	29	23
Costilla Reservoir Inflow	MAR-JUL	4.8	6.8	8.4	76%	10.1	13	11.1
Costilla Ck nr Costilla ²	MAR-JUL	9	14	18	69%	23	30	26

1) 90% and 10% exceedance probabilities are actually 95% and 5%

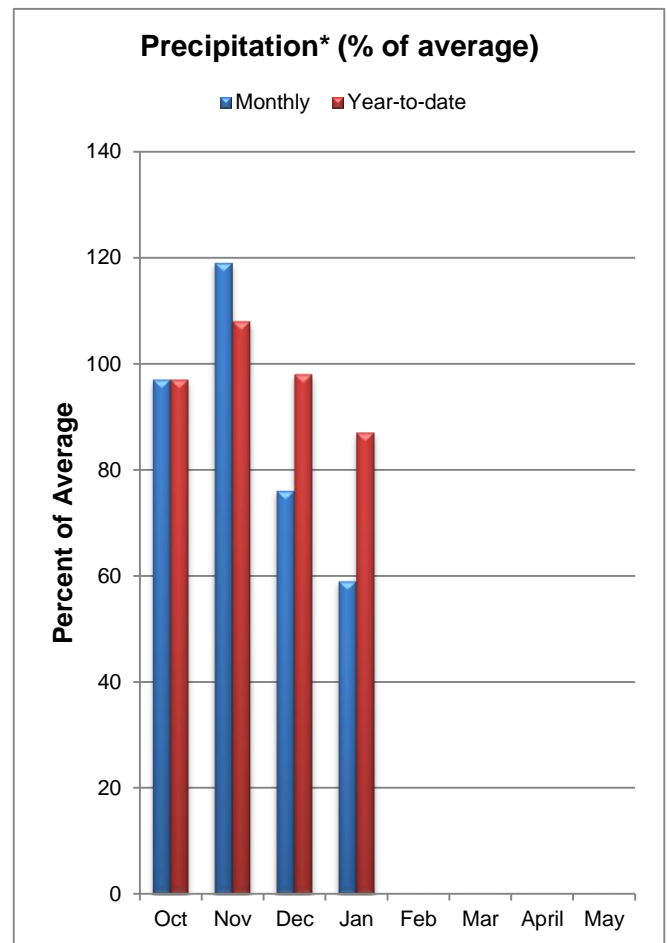
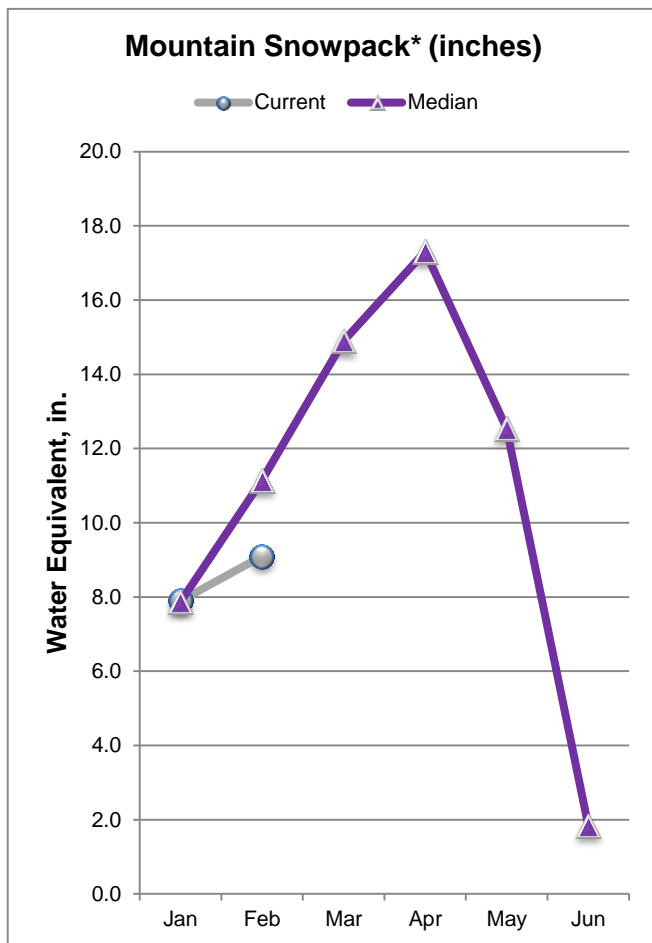
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
BEAVER RESERVOIR		1.5	4.2	4.5
CONTINENTAL RESERVOIR	9.7	7.4	4.5	27.0
PLATORO RESERVOIR	9.4	8.8	24.0	60.0
RIO GRANDE RESERVOIR	20.0	12.0	16.3	51.0
SANCHEZ RESERVOIR	5.9	6.3	27.6	103.0
SANTA MARIA RESERVOIR	8.4	7.3	10.5	45.0
TERRACE RESERVOIR	4.8	3.0	6.2	18.0
Basin-wide Total	58.2	46.3	93.3	308.5
# of reservoirs	6	7	7	7

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
ALAMOSA CREEK BASIN	3	76%	70%
CONEJOS & RIO SAN ANTONIO BASINS	4	69%	76%
CULEBRA & TRINCHERA BASINS	6	93%	79%
HEADWATERS RIO GRANDE RIVER BASIN	13	84%	76%
UPPER RIO GRANDE BASIN	25	82%	77%

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS as of February 1, 2014



*Based on selected stations

SUMMARY OF WATER SUPPLY CONDITIONS

SNOWPACK

Due to an extended dry spell in December and most of January, the snowpack in the combined southwest basins fell from 100 percent of median measured on January 1 to 82 percent of median as of February 1.

PRECIPITATION

Precipitation during January was just 59 percent of average in these basins. As a result the year-to-date precipitation dropped to 87 percent of average as of February 1.

RESERVOIR

Reservoir storage in these basins is at 84 percent of average which is a major improvement over last year when storage volumes were just 66 percent of average.

STREAMFLOW FORECASTS

Across the basin current April to July streamflow forecasts have declined from those issued last month. Forecasts now range from 98 percent of average for the San Miguel River near Placerville to 71 percent of average for the Mancos River near Mancos.

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San Miguel-Dolores-Animas-San Juan River Basins Streamflow Forecasts - February 1, 2014

Forecast Exceedance Probabilities for Risk Assessment
Chance that actual volume will exceed forecast

SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVER BASINS	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Dolores R at Dolores	APR-JUL	127	174	210	86%	250	315	245
McPhee Reservoir Inflow	APR-JUL	139	198	245	83%	295	380	295
San Miguel R nr Placerville	APR-JUL	80	106	125	98%	146	180	128
Cone Reservoir Inlet	APR-JUL	0.78	1.64	2.5	83%	3.6	5.8	3
Gurley Reservoir Inlet	APR-JUL	7.2	11.1	14.2	87%	17.7	24	16.4
Lilylands Reservoir Inlet	APR-JUL	0.85	1.26	1.6	83%	2	2.7	1.92
Rio Blanco at Blanco Diversion ²	APR-JUL	25	35	43	80%	51	65	54
Navajo R at Oso Diversion ²	APR-JUL	30	42	51	78%	61	78	65
San Juan R nr Carracas ²	APR-JUL	164	235	290	76%	350	450	380
Piedra R nr Arboles	APR-JUL	114	154	185	88%	220	275	210
Vallecito Reservoir Inflow	APR-JUL	119	151	175	90%	200	240	194
Navajo Reservoir Inflow ²	APR-JUL	370	500	600	82%	710	880	735
Animas R at Durango	APR-JUL	260	330	380	92%	435	525	415
Lemon Reservoir Inflow	APR-JUL	31	41	49	89%	57	71	55
La Plata R at Hesperus	APR-JUL	10.2	14	17	74%	20	26	23
Mancos R nr Mancos ²	APR-JUL	11.6	17.4	22	71%	27	36	31

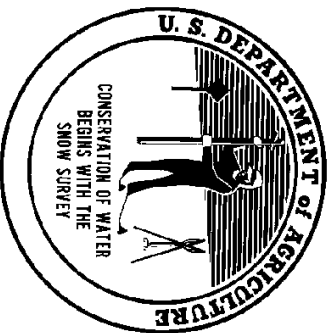
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2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

3) Median value used in place of average

Reservoir Storage End of January, 2014	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)
GROUNDHOG RESERVOIR	7.1	3.6	12.4	22.0
JACKSON GULCH RESERVOIR	2.8	1.4	4.5	10.0
LEMON RESERVOIR	17.4	8.1	20.9	40.0
MCPHEE RESERVOIR	184.5	190.3	266.4	381.0
NARRAGUINNEP RESERVOIR	13.6	5.6	14.7	19.0
TROUT LAKE RESERVOIR	1.2	1.3	2.1	3.2
VALLECITO RESERVOIR	96.5	43.4	63.3	126.0
Basin-wide Total	323.1	253.7	384.3	601.2
# of reservoirs	7	7	7	7

Watershed Snowpack Analysis February 1, 2014	# of Sites	% Median	Last Year % Median
ANIMAS RIVER BASIN	11	90%	81%
DOLORES RIVER BASIN	7	80%	94%
SAN MIGUEL RIVER BASIN	6	80%	92%
SAN JUAN RIVER BASIN	26	82%	87%
SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVER BASINS	26	82%	87%



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In addition to the basin outlook reports, water supply forecast information for the Western United States is available from the Natural Resources Conservation Service and the National Weather Service monthly, January through May. The information may be obtained from the Natural Resources Conservation Service web page at <http://www.wcc.nrcs.usda.gov/wsf/westwide.html>

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Basin Outlook Report

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